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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/868,160

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Luca Toncelli

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07/07/2004

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EXAMINER

BOYD, JENNIFER A

ART UNIT

PAPER NUMBER

1771

DATE MAILED: 07/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/868,160

Applicant(s)

TONCELLI, LUCA

Examiner

Jennifer A Boyd

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2 and 4-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Response to Amendment***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 21, 2004 has been entered. The Applicant's Amendments and Accompanying Remarks, filed January 21, 2004, have been entered and have been carefully considered. Claims 1, 5 and 6 are amended, claim 7 is added, claim 3 is cancelled and claims 1 – 2 and 4 – 7 are pending. The Examiner withdraws the previously set forth rejections as detailed in paragraphs 3 – 4 of the previous Office Action dated October 22, 2003. Despite this advance, the invention as currently claimed is not found to be patentable for reasons herein below.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

***Claim Rejections - 35 USC § 103***

3. Claims 1 – 2 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katsura (JP 11-130222) in view of Fukuki et al. (US 3,904,470).

Katsura is directed to a resin-made conveyor belt (Title).

Art Unit: 1771

As to claim 1, Katsura teaches a belt consisting of two core bodies, 2, an upper cover layer, 4, and an intermediate layer 3 (See Figure 1 and Abstract). The Examiner equates the core bodies to Applicant's "first and second layer of cloth" and the upper cover and intermediate layer to Applicant's "first and second layer of rubber". Katsura teaches that the core bodies are woven fabrics made from polyester or nylon fibers (Abstract). Katsura teaches that the upper cover layer and intermediate layer are formed of polyurethane (Abstract). It is assumed that because the upper cover layer and intermediate layer are of the same composition, they have the same heat transfer properties.

As to claim 2, Katsura teaches that the upper cover layer and intermediate layer, equated to Applicant's "first and second layer of rubber", are formed of polyurethane (Abstract).

As to claim 1, Katsura fails to teach that the first layer and second layer of rubber is previously cured before application of the final dimensional stabilization treatment consisting of heating to a temperature in the region of 160 degrees Celsius. As to claim 7, Katsura fails to teach that the curing process uses a peroxide vulcanization method.

Fukuki is directed to a method for bonding rubber to plastics (Abstract). Fukuki teaches bonding a shaped structure of vulcanized ethylene/propylene copolymer rubber to a polyolefin plastic material (column 1, lines 5 – 15). Fukuki teaches that the rubber can be vulcanized using various peroxide agents (column 3, lines 13 – 30). Fukuki notes that the form of the plastic material is not restricted (column 3, lines 58 – 65). Fukuki teaches the procedure of placing the vulcanized shaped structure in a mold and compressing and heating with a polyolefin plastic at a temperature range of about 150 – 300 degrees Celsius (column 4, lines 54 – 15). Fukuki notes

Art Unit: 1771

that the process of using a pre-vulcanized rubber and then adhering the rubber by means of an elevated heat treatment step results in a composite with improved bond strength even at high temperatures (column1, lines 5 – 15).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use pre-cured rubber sheets which are vulcanized by peroxide and subsequently heat treated to bond a polyolefin material as suggested by Fukuki in the composite of Katsura motivated by the desire to create a composite with improved bond strength.

Furthermore, even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same or an obvious variant from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). The burden has been shifted to the Applicant to show unobvious differences between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289, 292 (Fed. Cir. 1983). It is unclear that the previous curing step of the rubber layers would result in a significantly different final product. The burden is shifted to the Applicant to show unobvious differences in a product having one final stabilization treatment and a product having a previously cured rubber sheets which is subsequently subjected to a final stabilization treatment.

Art Unit: 1771

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Katsura (JP 11-130222) in view of Fukuki et al. (US 3,904,470), as applied above, in further view of Sashide et al. (US 6,260,692).

Katsura in view of Fukuki teaches the claimed invention except fails to disclose that the woven material layers comprises a polyester warp and a nylon weft.

Sashide is directed to a conveyor belt (Title). Sashide teaches a belt having a reinforcing layer of synthetic woven fabric embedded in an upper surface cover and lower surface cover (Abstract). The upper surface cover and the lower surface cover comprise natural rubber or synthetic rubber (column 2, lines 55 – 65). The woven fabric comprises nylon and polyester for the warp and weft (column 3, lines 10 – 35). Sashide notes that polyester fiber reduces the elongation at 10% load and the nylon fiber increases the elongation at break (column 3, lines 10 – 25).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the polyester fiber as the warp and the nylon fiber as the weft as suggested by Sashide in the fabric of Katsura in view of Fukuki motivated by the desire to optimize the elongation at 10% load and the elongation at break of the fabric to create a durable belt.

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Katsura (JP 11-130222) in view of Fukuki et al. (US 3,904,470), as applied above, and further in view of Lewis (US 4,744,843).

Katsura in view of Fukuki teaches the claimed invention except fails to disclose that the stabilization treatment is performed for 1 – 3 hours.

Art Unit: 1771

Lewis is directed to a method for producing conveyor belts or other molded articles (column 1, lines 10 – 12). In Figure 1, Lewis discloses a belt with nonwoven layers (1), elastomer layers (2) and woven layers (3) (column 1, lines 45 – 60). Lewis teaches that the molded article is cured at a temperature between 90 – 165 degrees Celsius for about 15 to 90 minutes depending on the cure recipe and thickness (column 2, lines 4 – 8).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to dimensionally stabilize the structure of Katsura in view of Fukuki by curing for about 15 – 90 minutes as suggested by Lewis motivated by the desire to enhance the bonding between the elastomer and woven layers.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Katsura (JP 11-130222) in view of Fukuki et al. (US 3,904,470), as applied above, in further view of Hartmann (US 4,109,784).

Katsura in view of Fukuki teach the claimed invention above, but fails to teach that the molded rubber sheet has a flat basis and an inclined peripheral border as to constitute a cavity.

Hartmann is directed to a conveyor belt (Title). Hartmann teaches that the endless flexible conveyor belt has a load-supporting portion, equated to Applicant's "flat basis", and two upstanding side walls thereon, equated to Applicant's "inclined peripheral border" (Abstract). See Figure 4. Hartmann teaches that the side wall corrugations is advantageous for applications where material is being transported between two or more levels (column 1, lines 25 – 30), have

Art Unit: 1771

the ability to undergo extension and compression to assist in moving object deflection (column 3, lines 35 – 45) and have a long service life (column 3, lines 40 – 50).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the conveyor of Katsura in view of Fukuki by adding border sidewalls as suggested by Hartmann motivated by the desire to retain objects on a conveyor belt while conveying from one location to another, especially when material is being transported between a higher and lower location.

It should be noted that “into which a mixture is deposited to undergo the process for the production of a slab” is an intended use limitation and is not given any patentable weight since the structural/chemical limitations of the product have been met and there is nothing on record to evidence that the prior art article could not function in the desired capacity. The burden is shifted upon the Applicant to evidence the contrary.



Art Unit: 1771

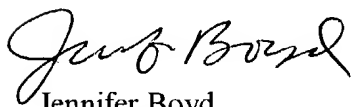
***Response to Arguments***


7. Applicant's arguments with respect to claims 1 – 2 and 4 - 7 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A Boyd whose telephone number is 571-272-1473. The examiner can normally be reached on Monday thru Friday (8:30am - 6:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Jennifer Boyd  
June 25, 2004

  
**Ula C. Ruddock**  
Primary Examiner  
Tech Center 1700